



1731

DKT 10114

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Huai N. Cheng,
Simon Delagrave, Qu-Ming Gu, and
Dennis J. Murphy

Group Art Unit: 1731

Serial No.: 10/027,149

Examiner: unknown

Filed: December 20, 2001

For: BIO-BLEACHING OF PULP USING LACCASE, MEDIATOR AND CHAIN
TRANSFER AGENT

Assistant Commissioner for Patents
Washington, D.C. 20231

RECEIVED

AUG 07 2002

TC 1700

Dear Sir:

SECOND INFORMATION DISCLOSURE STATEMENT

Pursuant to the duty of disclosure set forth in 37 C.F.R § 1.56 and in accordance with the provisions of 37 C.F.R§ § 1.97 and 1.98, Applicants hereby submit the International Search Report with referenced documents for the Examiner's consideration: A copy of the PTO 1449 Form is enclosed and the Examiner is respectfully requested to consider the documents. Accordingly, please indicate such consideration by returning a signed and initialed copy of the PTO-1449 Form.

This IDS is being submitted within 3 months of the receipt of the International Search Report and no fee should be due.

Should any fee be required, the undersigned hereby authorized the Commissioner to charge any fee necessary for the consideration of this statement, including any payment under 37 CFR 1.17(p), and to credit any

overpayment to Hercules Incorporated's Deposit Account No. 08-1800. This document is submitted in duplicate for this purpose.

Should the Examiner have any matter unresolved by this response, he is invited to telephone the undersigned at the below listed telephone number in order to expedite prosecution.

Respectfully submitted,



Joanne Mary Fobare Rossi
Attorney for Applicant
Reg. No. 43,061

RECEIVED

AUG 07 2002

TC 1700

Hercules Incorporated
1313 N. Market Street
Hercules Plaza
Wilmington, DE 19894-0001
Attorney's Phone: (302) 594-5833
August 1, 2002
c:\docs\101147iDS

PTO-1449 DOCUMENTS CITED BY APPLICANT	ATTY. DOCKET NO. 10114	SERIAL NO. 10/027,149
	APPLICANT(S) Huai N. Cheng, Simon Delagrave, Gu-Ming Gu & Dennis J. Murphy	
	FILING DATE December 20, 2001	GROUP 1731

+
*-

U.S. PATENT DOCUMENTS

EXAMINER* INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLAS S	FILING DATE IF RELEVANT
		6,162,260	12/19/00	Liu et al.	8/401		
		6,242,245 B1	06/05/01	Amann et al.	435		

RECEIVED

AUG 07 2002

TC 1700

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO

OTHER DOCUMENTS (Including author, title, date, pertinent pages, etc.)

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and <u>not considered</u> . Include copy of this form with next communication to applicant.	

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference DKT 10114	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US02/13049	International filing date (<i>day/month/year</i>) 24 APRIL 2002	(Earliest) Priority Date (<i>day/month/year</i>) 10 SEPTEMBER 2001
Applicant HERCULES INCORPORATED		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 2 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (See Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No. _____

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/13049

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : D21C 9/16; D21H 11/20, 25/02

US CL : 162/72, 78; 435/277,278

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 162/72, 78; 435/277,278

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,242,245 A (AMANN et al) 05 June 2001, see column 25, lines 21-67.	1-25
Y	US 6,162,260 A (LIU et al) 19 December 2000, see column 7, lines 11-33.	1-25

☐

Further documents are listed in the continuation of Box C.

☐

See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

26 MAY 2002

Date of mailing of the international search report

14 JUN 2002

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

STEVE ALVO

Telephone No. (703) 308-0651